

RAW SEQUENCE LISTING

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Application Serial Number: 10/S37,557
Source: FWP
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IFWP

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DATE: 04/14/2006

PATENT APPLICATION: US/10/537,557

TIME: 11:28:18

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04142006\J537557.raw

3 <110> APPLICANT: Jaffray, Ann
 4 Williamson, Anna-Lise
 5 Rybicki, Edward Peter
 7 <120> TITLE OF INVENTION: A Method for the Production of HIV-1 GAG Virus-Like
 Particles

9 <130> FILE REFERENCE: 45669-316582
 11 <140> CURRENT APPLICATION NUMBER: US 10/537,557
 12 <141> CURRENT FILING DATE: 2005-06-03
 14 <150> PRIOR APPLICATION NUMBER: PCT/IB03/005634
 15 <151> PRIOR FILING DATE: 2003-12-04
 17 <160> NUMBER OF SEQ ID NOS: 4
 19 <170> SOFTWARE: PatentIn version 3.3
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 1549
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Homo sapiens
 26 <400> SEQUENCE: 1
 27 gaattcatgg gtgcgagagc gtcaatatta agaggggaaa aattagataa atgggaaaag 60
 29 attagggttaa ggccaggggg aaagaaacat tatatgttaa aacacatagt atgggcgagc 120
 31 agggagctgg aaagatttgc acttaaccct ggccttttag aaacatcaga aggatgtaaa 180
 33 caaataatga aacagctaca accagctctc cagacaggaa cagaggaact taaatcatta 240
 35 tacaacacag tagcaactct ctattgtgta catgaaaaga tagaagtacg agacaccaag 300
 37 gaagccttag ataagataga ggaagaacaa aacaaatgtc agcaaaaaac gcagcaggca 360
 39 aaagcggtcg acgggaaagt cagtcaaaat taccctatag tgcagaatct ccaagggcaa 420
 41 atggtacatc aagccatatc acctagaacc ttgaatgcat gggtaaaagt aatagaagaa 480
 43 aaggctttta gccagaggt aatacccatg ttacagcat tatcagaagg agccacccca 540
 45 caagatttaa acaccatgtt aaatacagtg gggggacacc aagcagccat gcaaagtgtta 600
 47 aaagatacta ttaatgaaga ggctgcagaa tgggatagat tacatccagt ccatgcgggg 660
 49 cctattgcac caggccagat gagagaacca aggggaagtg acatagcagg aactactagt 720
 51 acccttcagg aacaaatagc atggatgaca agtaaccac ctattccagt gggagacatc 780
 53 tataaaagat ggataattct ggggtttaat aaaatagtga gaatgtatag cccggtcagc 840
 55 attttgga taagacaagg gccaaaggaa ccctttcgag actatgtaga tcggttcttt 900
 57 aaaactttta gagctgaaca agctacacaa gaagtaaaaa attggatgac agacaccttg 960
 59 ttagtccaaa atgcgaaccc agattgtaag accattttga gagcattagg accaggggct 1020
 61 acattagaag aaatgatgac agcatgtcaa ggggtgggag gacctggcca caaagcaaga 1080
 63 gtattggctg aggcaatgag tcaaacaac agtggaacaa taatgatgca gagaagcaat 1140
 65 tttaaaggcc ctagaagaat tgttaaatgt ttttaactgtg gcaaggaagg gcacatagcc 1200
 67 agaaattgca gagcccctag gaaaaaaggc tggtggaaat gtggaaaaga aggacaccaa 1260
 69 atgaaagact gactgagag gcaggctaatt ttttagggga aaatttggcc ttcccacaag 1320
 71 gggaggccag ggaatttcct tcagaacaga ccagagccaa cagccccacc agcagagagc 1380
 73 ttcaggttcg aagagacaac ccccgctccg aaacaggagc cgatagaaag ggaaccctta 1440
 75 acttcctca aatcactctt tggcagcgac cccttgtctc aataaaaagta gggggccaga 1500
 77 caaggagggc tctcttagac acaggagcag atgatacagt attgtcgac 1549
 80 <210> SEQ ID NO: 2

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81 <211> LENGTH: 1479

82 <212> TYPE: DNA

83 <213> ORGANISM: Homo sapiens

85 <400> SEQUENCE: 2

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86 atgggtgcga gagcgtcaat attaagaggg gaaaaattag ataatggga aaagattagg      60
88 ttaaggccag ggggaaagaa acattatatg ttaaaacaca tagtatgggc gagcagggag      120
90 ctggaaagat ttgcacttaa ccctggcctt ttagaaacat cagaaggatg taaacaaata      180
92 atgaaacagc tacaaccagc tctccagaca ggaacagagg aacttaaattc attatacaac      240
94 acagtagcaa ctctctattg tgtacatgaa aagatagaag tacgagacac caaggaagcc      300
96 ttagataaga tagaggaaga acaaaacaaa tgtcagcaaa aaacgcagca ggcaaaagcg      360
98 gctgacggga aagtcagtca aaattatcct atagtgcaga atctccaagg gcaaatggta      420
100 catcaagcca tatcacctag aaccttgaat gcatgggttaa aagtaataga agaaaaggct      480
102 tttagcccag aggtaatacc catgtttaca gcattatcag aaggagccac cccacaagat      540
104 ttaaacacca tgtaaatac agtgggggga caccaagcag ccatgcaaat gttaaaagat      600
106 actattaatg aagaggctgc agaatgggat agattacatc cagtccatgc ggggcctatt      660
108 gcaccaggcc agatgagaga accaagggga agtgacatag caggaactac tagtaccctt      720
110 caggaacaaa tagcatggat gacaagtaac ccacctattc cagtgggaga catctataaa      780
112 agatggataa ttctgggggtt aaataaaata gtgagaatgt atagcccggg cagcattttg      840
114 gacataagac aaggggccaaa ggaacccttt cgagactatg tagatcggtt ctttaaaact      900
116 ttaagagctg aacaagctac acaagaagta aaaaattgga tgacagacac cttgttagtc      960
118 caaaatgcga acccagattg taagaccatt ttgagagcat taggaccagg ggctacatta     1020
120 gaagaaatga tgacagcatg tcaaggggtg ggaggacctg gccacaaagc aagagtattg     1080
122 gctgaggcaa tgagtcaaac aaacagtgga aacataatga tgcagagaag caattttaaa     1140
124 ggcctagaa gaattgttaa atgttttaac tgtggcaagg aagggcacat agccagaaat     1200
126 tgcagagccc ctaggaaaaa aggctgttgg aaatgtggaa aagaaggaca ccaaataaaa     1260
128 gactgcactg agaggcaggc taatttttta gggaaaattt ggccttccca caaggggagg     1320
130 ccaggaattt tccttcagaa cagaccagag ccaacagccc caccagcaga gagcttcagg     1380
132 ttcgaagaga caacccccgc tccgaaacag gagccgatag aaaggaacc ctttaacttc     1440
134 ctcaaatcac tctttggcag cgacccttg tctcaataa                               1479

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137 <210> SEQ ID NO: 3

138 <211> LENGTH: 513

139 <212> TYPE: PRT

140 <213> ORGANISM: Homo sapiens

142 <400> SEQUENCE: 3

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144 Glu Phe Met Gly Ala Arg Ala Ser Ile Leu Arg Gly Glu Lys Leu Asp
145 1           5           10           15
148 Lys Trp Glu Lys Ile Arg Leu Arg Pro Gly Gly Lys Lys His Tyr Met
149           20           25           30
152 Leu Lys His Ile Val Trp Ala Ser Arg Glu Leu Glu Arg Phe Ala Leu
153           35           40           45
156 Asn Pro Gly Leu Leu Glu Thr Ser Glu Gly Cys Lys Gln Ile Met Lys
157           50           55           60
160 Gln Leu Gln Pro Ala Leu Gln Thr Gly Thr Glu Glu Leu Lys Ser Leu
161 65           70           75           80
164 Tyr Asn Thr Val Ala Thr Leu Tyr Cys Val His Glu Lys Ile Glu Val
165           85           90           95
168 Arg Asp Thr Lys Glu Ala Leu Asp Lys Ile Glu Glu Glu Gln Asn Lys
169           100          105          110
172 Cys Gln Gln Lys Thr Gln Gln Ala Lys Ala Ala Asp Gly Lys Val Ser

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173          115          120          125
176 Gln Asn Tyr Pro Ile Val Gln Asn Leu Gln Gly Gln Met Val His Gln
177          130          135          140
180 Ala Ile Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Ile Glu Glu
181 145          150          155          160
184 Lys Ala Phe Ser Pro Glu Val Ile Pro Met Phe Thr Ala Leu Ser Glu
185          165          170          175
188 Gly Ala Thr Pro Gln Asp Leu Asn Thr Met Leu Asn Thr Val Gly Gly
189          180          185          190
192 His Gln Ala Ala Met Gln Met Leu Lys Asp Thr Ile Asn Glu Glu Ala
193          195          200          205
196 Ala Glu Trp Asp Arg Leu His Pro Val His Ala Gly Pro Ile Ala Pro
197          210          215          220
200 Gly Gln Met Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr Thr Ser
201 225          230          235          240
204 Thr Leu Gln Glu Gln Ile Ala Trp Met Thr Ser Asn Pro Pro Ile Pro
205          245          250          255
208 Val Gly Asp Ile Tyr Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile
209          260          265          270
212 Val Arg Met Tyr Ser Pro Val Ser Ile Leu Asp Ile Arg Gln Gly Pro
213          275          280          285
216 Lys Glu Pro Phe Arg Asp Tyr Val Asp Arg Phe Phe Lys Thr Leu Arg
217          290          295          300
220 Ala Glu Gln Ala Thr Gln Glu Val Lys Asn Trp Met Thr Asp Thr Leu
221 305          310          315          320
224 Leu Val Gln Asn Ala Asn Pro Asp Cys Lys Thr Ile Leu Arg Ala Leu
225          325          330          335
228 Gly Pro Gly Ala Thr Leu Glu Glu Met Met Thr Ala Cys Gln Gly Val
229          340          345          350
232 Gly Gly Pro Gly His Lys Ala Arg Val Leu Ala Glu Ala Met Ser Gln
233          355          360          365
236 Thr Asn Ser Gly Asn Ile Met Met Gln Arg Ser Asn Phe Lys Gly Pro
237          370          375          380
240 Arg Arg Ile Val Lys Cys Phe Asn Cys Gly Lys Glu Gly His Ile Ala
241 385          390          395          400
244 Arg Asn Cys Arg Ala Pro Arg Lys Lys Gly Cys Trp Lys Cys Gly Lys
245          405          410          415
248 Glu Gly His Gln Met Lys Asp Cys Thr Glu Arg Gln Ala Asn Phe Leu
249          420          425          430
252 Gly Lys Ile Trp Pro Ser His Lys Gly Arg Pro Gly Asn Phe Leu Gln
253          435          440          445
256 Asn Arg Pro Glu Pro Thr Ala Pro Pro Ala Glu Ser Phe Arg Phe Glu
257          450          455          460
260 Glu Thr Thr Pro Ala Pro Lys Gln Glu Pro Ile Glu Arg Glu Pro Leu
261 465          470          475          480
264 Thr Ser Leu Lys Ser Leu Phe Gly Ser Asp Pro Leu Ser Gln Lys Gly
265          485          490          495
268 Ala Arg Gln Gly Arg Leu Ser Thr Gln Glu Gln Met Ile Gln Tyr Cys
269          500          505          510

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272 Arg
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277 <211> LENGTH: 492
278 <212> TYPE: PRT
279 <213> ORGANISM: Homo sapiens
281 <400> SEQUENCE: 4
283 Met Gly Ala Arg Ala Ser Ile Leu Arg Gly Glu Lys Leu Asp Lys Trp
284 1 5 10 15
287 Glu Lys Ile Arg Leu Arg Pro Gly Gly Lys Lys His Tyr Met Leu Lys
288 20 25 30
291 His Ile Val Trp Ala Ser Arg Glu Leu Glu Arg Phe Ala Leu Asn Pro
292 35 40 45
295 Gly Leu Leu Glu Thr Ser Glu Gly Cys Lys Gln Ile Met Lys Gln Leu
296 50 55 60
299 Gln Pro Ala Leu Gln Thr Gly Thr Glu Glu Leu Lys Ser Leu Tyr Asn
300 65 70 75 80
303 Thr Val Ala Thr Leu Tyr Cys Val His Glu Lys Ile Glu Val Arg Asp
304 85 90 95
307 Thr Lys Glu Ala Leu Asp Lys Ile Glu Glu Glu Gln Asn Lys Cys Gln
308 100 105 110
311 Gln Lys Thr Gln Gln Ala Lys Ala Ala Asp Gly Lys Val Ser Gln Asn
312 115 120 125
315 Tyr Pro Ile Val Gln Asn Leu Gln Gly Gln Met Val His Gln Ala Ile
316 130 135 140
319 Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Ile Glu Glu Lys Ala
320 145 150 155 160
323 Phe Ser Pro Glu Val Ile Pro Met Phe Thr Ala Leu Ser Glu Gly Ala
324 165 170 175
327 Thr Pro Gln Asp Leu Asn Thr Met Leu Asn Thr Val Gly Gly His Gln
328 180 185 190
331 Ala Ala Met Gln Met Leu Lys Asp Thr Ile Asn Glu Glu Ala Ala Glu
332 195 200 205
335 Trp Asp Arg Leu His Pro Val His Ala Gly Pro Ile Ala Pro Gly Gln
336 210 215 220
339 Met Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr Thr Ser Thr Leu
340 225 230 235 240
343 Gln Glu Gln Ile Ala Trp Met Thr Ser Asn Pro Pro Ile Pro Val Gly
344 245 250 255
347 Asp Ile Tyr Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile Val Arg
348 260 265 270
351 Met Tyr Ser Pro Val Ser Ile Leu Asp Ile Arg Gln Gly Pro Lys Glu
352 275 280 285
355 Pro Phe Arg Asp Tyr Val Asp Arg Phe Phe Lys Thr Leu Arg Ala Glu
356 290 295 300
359 Gln Ala Thr Gln Glu Val Lys Asn Trp Met Thr Asp Thr Leu Leu Val
360 305 310 315 320
363 Gln Asn Ala Asn Pro Asp Cys Lys Thr Ile Leu Arg Ala Leu Gly Pro
364 325 330 335
367 Gly Ala Thr Leu Glu Glu Met Met Thr Ala Cys Gln Gly Val Gly Gly

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368          340          345          350
371 Pro Gly His Lys Ala Arg Val Leu Ala Glu Ala Met Ser Gln Thr Asn
372          355          360          365
375 Ser Gly Asn Ile Met Met Gln Arg Ser Asn Phe Lys Gly Pro Arg Arg
376          370          375          380
379 Ile Val Lys Cys Phe Asn Cys Gly Lys Glu Gly His Ile Ala Arg Asn
380 385          390          395          400
383 Cys Arg Ala Pro Arg Lys Lys Gly Cys Trp Lys Cys Gly Lys Glu Gly
384          405          410          415
387 His Gln Met Lys Asp Cys Thr Glu Arg Gln Ala Asn Phe Leu Gly Lys
388          420          425          430
391 Ile Trp Pro Ser His Lys Gly Arg Pro Gly Asn Phe Leu Gln Asn Arg
392          435          440          445
395 Pro Glu Pro Thr Ala Pro Pro Ala Glu Ser Phe Arg Phe Glu Glu Thr
396          450          455          460
399 Thr Pro Ala Pro Lys Gln Glu Pro Ile Glu Arg Glu Pro Leu Thr Ser
400 465          470          475          480
403 Leu Lys Ser Leu Phe Gly Ser Asp Pro Leu Ser Gln
404          485          490

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VERIFICATION SUMMARY

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